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Amateur Radio

JOURNAL OF
THE WIRELESS
INSTITUTE OF
AUSTRALIA

For the Experimenter
and Radio Enthusiast



9_D.

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3517 Kc.	7029 Kc.	8019.5 Kc.	8171 Kc.
3535 Kc.	7032 Kc.	8021.5 Kc.	8182 Kc.
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Published by the Wireless Institute of Australia,
Law Court Chambers, 191 Queen Street,
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ADVERTISING REPRESENTATIVE:

W. J. LEWIS,
20 Queen St., Melbourne, C.I.
Telephone: MU 5154.

PRINTERS:

"RICHMOND CHRONICLE"
Shakespeare St., Richmond, E.I.
Telephone: JB 2419.

MSS. and Magazine Correspondence should be forwarded to the Editor, "Amateur Radio," Law Court Chambers, 191 Queen St., Melbourne, C.I., on or before the 8th of each month.

Subscription rate in Australia is 9/- per annum, in advance (post paid) and A10/6 in all other countries.

Wireless Institute of Australia
(Victorian Division) Rooms' Tele-
phone is FJ 6997.

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All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK3WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST, 60 and 144 Mc. No frequency checks available from VK3WI. Intra-State working frequency, 7175 Kc.

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VK3WI: Sundays, 0900 hours EST, simultaneously on 7196 and 14312 Kc. 7085 Kc. channel is used from 0930 to 1030 hours each Sunday for the W.I.A. country hook-up. No frequency checks available.

VK3WI: Sundays, 1000 hours EAST, on 7196 Kc. Frequency checks are given by VK3WI by arrangements only on the V and 14 Mc. bands.

VK3WI: Sundays, 0930 hours EAST, on 7196 Kc. No frequency checks available.

VK3WI: Sundays, at 1000 hours EST, on 7196 Kc. and 146.5 Mc. No frequency checks are available.

EDITORIAL



Release of the 21 Mc. Band

As members may well remember back in Atlantic City in 1947 a frequency table was decided upon by the International Telecommunication and Radio Conference which would allocate frequencies for all the various types of radio services on an engineering basis.

At this Conference were delegates from every country in the world, meeting together on an international footing in order to arrive at some agreement whereby the radio frequency spectrum as we know it today could be divided up in a systematic manner so that the requirements of all countries could adequately be met.

This in itself was a superhuman task, and it is a credit to mankind that at a conference of this nature where languages create such a difficult obstacle to conversation, a frequency table as is now in existence was possible.

However, despite the presence of the Frequency Table, the implementation of it seemed a remote objective until the Extraordinary Administrative Radio Conference held in Geneva in 1951. At this Conference steps were taken to commence the implementation of the frequency table in that part of the frequency spectrum below 27.5 Mc., the responsibility remaining with Administrations to implement the various transfers of services to frequencies agreed to at the Conference, some of which were to be implemented on certain specified dates.

So far as the Amateur band frequency allocations are concerned for Region 3 (which includes Australia) under the Frequency Table agreed to in 1947 at Atlantic City, we would

ultimately lose 50 Kc. in the 7-7.2 Mc. and 14-14.4 Mc. regions, and gain the 21.0-21.450 Mc. frequency allocation.

Over the period since 1947 we have made strenuous approaches to the Australian Administration requesting the implementation of these frequency agreements to which Australia was a signatory. In every instance the Administration Authority has appreciated our approach and given a sympathetic hearing to our requests, but for many reasons—too numerous to recount although well recognised as difficult obstacles against immediate implementation—it has not been possible.

After we became aware of the Agreement reached at the Geneva Radio Conference concerning measures for the implementation of the lower part (below 27.5 Mc.) of the Atlantic City Frequency Allocation Table, we again pressed the Amateurs' case with the Australian Administration.

Arising from our discussions we have every reason to expect that implementation of the Amateur bands within the spectrum encompassed by the Agreement reached at the Geneva Conference will take place about the 1st May, 1952.

We feel justly proud of the fact that we have been instrumental in gaining the implementation of these frequency changes on behalf of the Australian Amateur, and although our two lower frequency bands have been reduced by 50 Kc. on the high end—which of course we all knew would inevitably be so—we have gained a band that should be an excellent DX band as well as an additional band.

—FEDERAL EXECUTIVE.

THE CONTENTS . . .

Low Power 2 Metre Crystal Controlled Transmitter	3	Ross A. Hull Memorial Contest 1951-52 Results	7
Television Made Easy, Part viii. —Interference and how the Ham can check it	5	Fifty Megacycles and Above	9
		DX Notes by VK4QL	10
		Federal, QSL, and Divisional Notes	11

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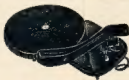
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Central 4311

Low Power 2 Metre Crystal Controlled Transmitter

BY K. B. MITCHELHILL, VK2ANU

In warmer weather most v.h.f. fans and newcomers to v.h.f. bands are usually constructing and overhauling gear for greater activity.

On looking through current radio magazines it is noted that there has been very little space devoted to the construction of gear for the 144 Mc. band in the way of transmitters of the crystal control type. As modulated oscillators are gradually giving way to crystal control and transmitters of better stability, the low power rig here described should be of interest to many in getting to 144 Mc. using a VT501 disposals tube as a series tuned tripler (civil type TT11). Ratings of this tube as known are: 250v. plate, 250v. screen, 6.3v. heater at 0.8 amp. Such tubes were used up to 130 Mc. in airborne v.h.f. equipment.

To most of us the ultimate is to use whatever gear is available in the junk box without spending too much money, as is the case where v.h.f. equipment is concerned. The only outlay in this case is for an 832 and socket. This tube is not by any means the only one that has been successfully used as a final, as the tripler output is ample to drive a pair of 7193s in push-pull.

The main point of interest is firstly to get to 144 Mc. and the method of coupling to the 832 final.

far as various crystals are concerned, especially where crystals are somewhat sluggish.

Next tube in line is the 6F6 doubler; the tuning condenser being mounted on the front panel of the chassis between the 6F6 doubler socket and the VT501 tripler socket to ensure the shortest of leads.

From here the remaining tank circuits are mounted above the chassis. The VT501 is mounted vertically; this allows correct length for the 144 Mc. series tuned coil and room for adjustment. The series tuning condenser is mounted on a metal panel on the front edge of the chassis so that it supports the cold end of the coil and gives sufficient room for the 832 grid coil to come directly off the grid pins for positioning beneath the tripler plate tank.

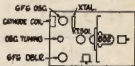
It is advisable to mount all components up to the VT501 tank circuit. The 832 is then mounted horizontally on a bracket and with the grid coil mounted on the socket, the bracket is then slid along the chassis until a suitable position is found where the grid coil sits directly under the cold end of the tripler plate tank coil. This ensures the shortest of leads.

In the 832 plate tank, the coil is constructed with half inch spacing between the two sections, i.e. the coil is wound

this case the base of an old ceramic padding condenser.

For neutralising, two lengths of No. 16 s.w.g. enamel wire were soldered to the grid pins, crossed over and continued through insulated bushes in the bracket holding the 832 as far as the top edge of the 832 plates viewed through the glass envelope. These wires are bent relative to the tube elements until there is no further flicker in grid current when the plate tank is tuned through resonance. For neutralising the voltage is removed from the plate and screen of the 832.

The r.f. chokes used were originally taken from an I.F.F. set and are ideal.



POWER REQUIREMENTS

The circuit diagram shows a series heater circuit as the writer's power supply is derived from a 32 volt lighting plant. Modification for other voltages is a simple matter. The high voltage is obtained from a generator delivering 250 volts at 100 Ma.

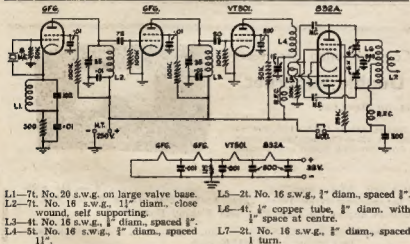
Total current drawn by the two 6F6s and VT501 is in the vicinity of 50 Ma., allowing the remaining 50 Ma. for operation of the 832. In operation, the 832 is loaded to 40 Ma., being an input of 10 watts.

TUNING

After preliminary adjustments have been made and the various circuits put on frequency with an absorption wavemeter, tuning of this little rig is straight forward. As the output of the VT501 tripler will over-drive the 832, the doubler circuit is detuned so that the final grid drive is 2 Ma., which is found to give most efficient operation. Detuning the doubler circuit does not appear to affect operation in any way as it is better to detune this circuit in preference to the tripler in view of efficient operation.

The only circuits metered are the 832 grid and plate. The modulator used with this little rig is p.p. 6V6s in Class AB1, plate and screen modulating the 832 final.

The mounting of the tripler plate tank is shown in Fig. 2 and the method of mounting the 832 grid coil will be seen from Fig. 1. The coupling is such that both coils are tuned by the tripler plate tank condenser, and the coupling is adjusted by experimentally squeezing the coils until maximum grid drive is obtained.



CONSTRUCTIONAL POINTS

The transmitter is constructed on a chassis 16" x 6" x 3" as indicated. The first tube is a 6F6 used as a triet oscillator with an 8 Mc. crystal tripling to 24 Mc., the plate circuit being fixed tuned by means of a 3-30 pF. air trimmer. The cathode coil is made to plug into a socket mounted on the end plate of the chassis near the oscillator tube socket.

A little time spent in adjustment of the cathode coil will pay dividends as

in two halves with half inch between the two, allowing space for the antenna coupling coil. This coil is mounted directly onto the condenser, which in this case was a modified condenser taken from a TR1143, stripped down to three fixed plates in each stator section with three plates left for the rotor. The condenser is mounted on brackets to bring it to the height of the 832 plate pins and is connected to the plate pins with half inch lengths of copper strip or flattened braid and small Farnstock clips from an old dry battery. The antenna coupling coil is supported on a small ceramic strip, in

*"Inglewood," Muscle Creek, Muswellbrook, N.S.W.

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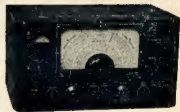
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Part viii.—

Interference, and How the Hams Can Check It

BY KEN WALL† AND JOHN JARMAN,* VK3ADA

Let us put the clock forward by a few years and imagine that Australia's long-awaited television service is at last in operation.

Johnny Citizen, having purchased and installed his television receiver, is now enjoying his favourite evening programme, when alas! Just as his favourite strip-tease artist is about to shed her last garment, something goes wrong. A burst of interference makes the picture either invisible, or distorted beyond recognition!

Enraged with disappointment, he must blame somebody and who is a better "sitting target" than Bill, the nearest Ham, who is duly visited. We censor John's "opening address" as Bill opens the door to him.

Now a television receiver is prone to all kinds of interference and quite likely Bill (who could be any reader) is "not guilty." He might not have even been on the air and probably feels like telling John to go and get a better receiver.

Remember, however, that there are other Hams on the air whom John may suspect, unless shown the real cause of the trouble, so that an indifferent attitude on Bill's part may provoke complaints about Ham interference, which are neither justified nor necessary, and which won't help us, as an organisation, to obtain further privileges when we apply for them.

We see, therefore, that Bill's duty is not only to prevent his own rig from causing television interference (abbreviated t.v.i.), but to help the complainant locate the real cause.

Furthermore, all radio shops will probably be closed at this time of night, so that Bill may be the only "radio bloke" available, and any assistance on his part will be appreciated.

Now Bill is not a trained television serviceman and to tamper with a delicate instrument like a television set would be most inadvisable. What can he do? Well, having proceeded to examine John's receiver, he should try and place the fault in one of the following categories:—

1. Simple receiver faults which he can rectify.
2. Serious faults to be fixed only by a television serviceman.
3. Amateur interference.
4. Interference from some other radio station.
5. Interference from faulty electrical appliances.

Now this cannot be done by mere guesswork. It requires careful investigation combined with an elementary knowledge of television theory, and this is just what these articles have been intended to provide.

Let us first consider what interference Bill's transmitter might have caused.

Since Australian television signals will be on frequencies from 180-204 Mc., Bill's main "bug-bear" will be harmonics and parasites. We have also learnt that our system will use 25 pictures per second, and 625 lines per picture, which amounts to 15625 lines per second. Now suppose a spurious signal, on a frequency within the television band originates from a Ham Station, using a modulating frequency of 3125 c.p.s. Now the spurious signal will also be modulated at this frequency. How will television receivers respond to it? Well, 3125 is one-fifth of 15625, so that every fifth line will be darkened, so that dark horizontal bars appear across the screen.

In actual practice, of course, the signal will be modulated by a multitude of audio frequencies, so that the bars will not remain steady, but will move vertically, flashing on and off with modulation. A similar effect occurs when the interfering signal beats with the required one. If the resultant frequency exceeds 15625, the bars will no longer appear horizontal, but become sloped, and varying in thickness.

Another common form of t.v.i. is the upsetting of the synchronisation. We learned in article vi. that most receivers distinguish the synch. pulses purely by their amplitude, and can therefore mistake any interfering signal of sufficient amplitude, for synchronising signals, so that their deflection oscillators get "out of step." One therefore sees, on the screen, not a steady picture, but a series of pictures, joined end-to-end racing madly across, either horizontally or vertically.

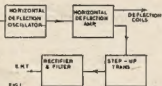


FIG. 1—Popular method of obtaining High Voltage for Tube.

Indirect forms of Ham interference occur where the mains voltage has poor regulation, so that every time Bill presses his key, the lights go dim. The effects on neighbouring television sets will vary, according to design, and here we shall pause, to explain two innovations.

We know that a cathode ray tube requires very high voltage on certain elements, and in a television receiver this is known as e.h.t. (extra high tension) as distinct from the normal h.t. or B plus supply, and methods of producing it vary. Mains transformers are not favoured in television receivers, since their positioning, to prevent their

magnetic fields from interfering with the scanning spot, is too critical and introduces design problems.

The familiar a.c.-d.c. circuit, as used in some broadcast receivers, is therefore commonly used and one popular method of producing the e.h.t. is to step up the output of the horizontal deflection oscillator as outlined in Fig. 1.

In receivers using this circuit a change in mains voltage may cause a change in either picture brightness, picture width, or both.

The other modern source of trouble is the automatic gain control circuit, incorporated in some receivers. In a vision receiver, the a.g.c. voltage is applied to the r.f. and i.f. stages as in a sound receiver, but it is obtained in a different way. We are familiar with circuits in which the a.g.c. voltage is proportional to the average value of the signal. Now, in television, this voltage is made proportional to the peak amplitude of the signal or, in other words, the amplitude of the synch. pulses. Special circuits must therefore be used, one type being shown in Fig. 2.

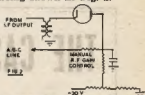


FIG. 2—Simple A.G.C. Circuit for Vision Receiver.

The values of the components in any a.g.c. circuit are very critical, and if incorrect, such circuit will be affected by any impulse interference and any change in mains voltage. Either may weaken or completely "blank out" the picture.

There are other cases when the interference may be the fault of the receiver, rather than the Ham. Some faults may cause a receiver to respond to signals from a Ham transmitter that is operating quite normally. These include:—

1. Cathode ray tube grid picking up 80 metre band signals directly.
2. R.f. stages admitting signals within i.f. band.
3. Generation (by mixer) of harmonics of Ham signals, within i.f. band.

Another fault, for which innocent Hams are often blamed, is the "leakage" of sound signals into the receiver's picture circuit, since this produces the same "dark bar" effects as Ham interference.

Overseas, these faults have often resulted from poor receiver design, but in Australia this is less likely. Our receivers will be designed upon the very latest advice from overseas engineers who, in their years of experience, have had to contend with all kinds of interference (Hams included) and will surely take all precautions against same.

Bill is therefore likely to strike this trouble only on three occasions:—

1. When receiver has been tampered with.
2. When receiver has deteriorated with age.
3. In a home-built set.

Continuing the story, let us first take the case when Bill has been on the air,

†172 Johnson Street, Maffra, Victoria.
*A11426 L.A.C. Jarman, J. B., c/o A.R.D.U., R.A.A.F., Woomera S., South Australia.

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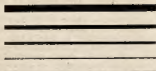
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| ● WORSTED YARNS | |



and might have been causing the trouble. He must first ascertain whether his transmitter is responsible, which is done by arranging for a fellow Ham to operate his rig while Bill watches the screen. If the interference coincides with the keying, sure enough Bill's transmitter is interfering, but may not be at fault. It could be one of the receiver faults listed above.

In any case, however, if Bill sees the interference pattern he will first photograph it for future reference. This is not essential, but quite a good plan, as we will shortly see.

Bill now investigates, to see whether other receivers in the neighbourhood are displaying the same fault. If not, John's receiver is to blame. It is appropriate to mention here a certain receiver fault which may be misleading, namely the "leakage" of the local oscillator output into the aerial circuit. This causes the aerial to radiate a signal at low frequency, which beats with the required signal in other sets, often causing the same "dark bar" effect as Ham interference. In this case the offending set will be the only one not displaying the trouble.

In any case, Bill's next job, after having established which set is faulty, is to link up with the television serviceman, who repairs the receiver, showing him the photo and making test transmissions at the serviceman's request, to facilitate correction of the fault.

Now take the case when Bill finds that all local receivers experience the same fault, coinciding with his transmissions. Yes, Bill has faulty rig! He will now thoughtfully stay off the air during television programmes (which only occupy limited hours) until the trouble is cured.

He has wisely studied these articles and now, applying the theory given, endeavours to figure out just how his transmitter could be causing such interference. It may be something quite new and different from any effect described in this series. On such occasions a few minutes discussion with a television serviceman may solve the problem completely (particularly if a photo is available), at the same time improving Bill's knowledge of interference and its prevention. In all cases, Bill's task of eliminating the trouble will be made much easier if he can first work out how the effects are caused, even if he can only do so with assistance.

Suppose now that the effects do not occur when Bill's rig goes on the air. His rig may be innocent, but don't be hasty. The fault may be intermittent.

Finally comes the case when the interference occurs when Bill's rig is not even on the air. Breathing a sigh of relief, Bill now examines the pattern, or visual effects, and considers the possible causes, paying special attention to the most probable ones. Of the five categories given earlier in this article, which do the effects suggest?

Could it possibly be another Amateur Station? Could it be some other radio station, such as aircraft, aerodrome control tower, radio-equipped cars, etc.?

Do John's neighbours experience the same trouble? If not, John's set must be faulty, but must he engage a serviceman or can Bill fix it? Bill now gives the set a brief examination. Any

audible interference suggests a faulty set, since a properly adjusted i.m. receiver gives noise-free reception. How are the power leads and aerial feeder? Any poor connections or intermittent shorts? Is the aerial feeder insecure, and swaying in the wind?

One fault, which a Ham can often cure is the "ghosts" caused by multi-path reception. We know that radio waves can be reflected by certain objects, such as buildings, etc., and quite often a television signal reaches a receiver by a number of reflected paths, in addition to its normal direct path from the transmitter. The longer the path, the later and weaker the reflected signal will be on reaching the receiver.

Each picture impulse therefore reaches the receiver not once, but several times, becoming progressively weaker, so that the scanning spot, as it travels from left to right, is modulated several times by the same picture impulse. Each object in the picture therefore appears to have a series of images or "ghosts" placed behind it. In Fig. 3, for instance, the three waves each carrying the same picture impulse would reach the receiver in the order a, b, c.

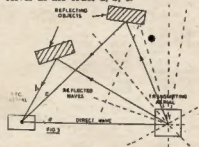


Fig. 3—Example of Multi-path Reception.

If a directional aerial is in use, this effect can often be cured by rotating the aerial to a position where it will pick up only the direct wave, so that the "ghosts" disappear. Remember that in Australia, all television signals will be horizontally polarised.

Having decided that the trouble is a case for a serviceman, Bill will "link up" with the latter, showing him the photo. Bill's description of the effects may be very useful to him and Bill, in turn, can learn the cause of the trouble for future reference.

Finally comes the case when neighbours share the same trouble, proving that there's a source of interference in the district, which is not a radio station of any kind (according to symptoms). What does the pattern suggest? Different forms of interference produce different patterns. Ignition, for instance, produces short horizontal bars all over the screen, while diathermy apparatus (used by doctors) produces a pattern like herringbone cloth. It would be hasty, however, to attempt to identify the interference by the visible effects alone. These must be associated with other observations.

Bill now produces his pocket book and asks John some relevant questions. "How long have these effects been apparent and at what times of day?" "Do they occur on all channels (or television carrier frequencies)?" "How long do

Ross A. Hull Memorial Contest 1951-2 Results

The Federal Contest Committee has pleasure in reporting the results of the 1951-52 Ross Hull Memorial Contest for Interstate working on 30 Mc.

Support for the contest was greater than in previous years and 45 logs were received. Altogether some 2900 logs were received, a contest at some time or another—an indication of the popularity of 30 Mc. and of the interest which the contest aroused.

Most of the comments received were enthusiastic and the contestants apparently enjoyed themselves. Some thought that the contest should be of shorter duration with, perhaps, a limit on the number of repeat contacts. An increase in the number of points for short-skip contacts may be desirable, e.g., VK3-VK1 and VK2-VK4 contacts are comparatively rare.

Our congratulations go to Hugh Lloyd VK8BC who wins the Ross Hull Memorial Trophy this year with the fine score of 2241 points for 426 contacts. He was closely followed by Roland Everingham VK8BO with 238 QSOs and 2205 points and the last year's winner, Fred Stirr VK4ACB, with 3010 points.

Included in 8BO's winning score were 27 QSOs with New Zealand, while VK8BO had 23 contacts with ZL. Russ VK8KK created a great deal of interest by coming on for the contest and working all districts except VK3 and ZL.

From across the Tasman, ZL8BJ, ZL1WW and ZL4DS put up excellent performances, working all the main bands, and we hope to see more New Zealand participation next year.

In addition to the Ross A. Hull Memorial Trophy, to be held this year by VK8BC, certificates have been awarded to district winners, viz.: VK4ACB, VK3IM, VK4BT, VK8BC, VK8BO, VK7LZ, VK8KK, ZL1WW, ZL8BJ, ZL4PN.

Full results appear below—

VK3AC	2241	VK4RY	301	VK1JX	267
VK8BO	2205	VK8MA	699	VK3PG	341
VK3ABC	2010	VK3JE	593	VK3KL	239
VK8DW	1716	VK3ARA	525	VK3HK	237
VK3AD	1646	VK3ADS	485	VK3AB	234
VK8HD	1637	VK4NG	372	VK3XO	188
VK8WG	1607	VK2AMV	304	VK3AJ	189
VK3W	1603	VK7LZ	344	VK7LJ	113
VK3WJ	1489	VK3JD	313	VK7BQ	113
VK4KK	1389	VK4XJ	228	VK4AW	71
VK3WV	1384	VK3KM	275	VK4BO	47
VK3IM	955	VK7AB	271	VK3GE	46
VK3WH	814			VK3AC	40

ZL8BJ	1239	ZL4DS	1202	ZL4PN	287
ZL1WW	1224	ZL8BP	807	ZL8BV	7
ZL4DO	465				

ACCURATE FREQUENCY TRANSMISSIONS FROM VK3WI

The next Accurate Frequency Transmission will take place on Thursday evening, 29th May, 1952, on the 3.5 Mc. band. Details of the operating procedure and areas of operation will be found on page 8 of the January, 1952, issue of this magazine.

they last on each occasion?" "Have they become progressively worse over a period?"

With this information, coupled with his visual observations, Bill now tries to work out the possible causes and where to look for them. Could they be in John's house? Or in any of the neighbours' homes? Is there an adjacent hospital, surgery, garage, or industrial plant? Electric motors and automatic switching devices are all potential trouble-makers.

The final phase is a tour of investigation, continued until the source of interference is found. Bill, of course, need not do this himself, but he should direct the complainant to a party capable of doing so and assist to the best of his ability.

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Primary Connections For Modulator Tubes				Secondary Connections and Impedances for R.F. Load												
A to A Impedance	A	CT	A	Join 8 & 10 Con. to 7 & 12	Join 8 & 10 Con. to 8 & 12	Join 8 & 10 Con. to 9 & 11	Join 8 & 9 Con. to 7 & 12	Join 7 & 9 8 & 12 Con. to 7 & 10	Join 8 & 9 Con. to 8 & 10	Join 3 & 4 Con. to 1 & 6	Join 3 & 4 Con. to 2 & 6	Join 2 & 3 Con. to 1 & 6	Join 3 & 4 Con. to 2 & 5	Join 1 & 3 4 & 6 Con. to 1 & 4	Join 7 & 11 8 & 12 Con. to 7 & 8	Join 1 & 5 2 & 6 Con. to 1 & 2
Ohms																
2000	2	3-4	5	8600	6350	4300	3620	2150	1070	—	—	—	—	—	—	200
2000	1	2-5	6	15700	11400	7900	6650	3920	1950	—	—	—	—	—	—	350
3000	2	3-4	5	13000	9400	6500	5500	3240	1620	—	—	—	—	—	—	300
3000	1	2-5	6	23500	17000	11800	10000	5900	2950	—	—	—	—	—	—	520
3800	2	3-4	5	16400	12000	8200	7000	4100	2050	—	—	—	—	—	—	380
3800	1	2-5	6	29800	21500	15000	12800	7500	3740	—	—	—	—	—	—	660
4000	2	3-4	5	17400	12500	8650	7300	4300	2160	—	—	—	—	—	—	400
4000	8	9-10	11	—	—	—	—	—	—	5500	3450	2850	1850	1380	—	250
5000	2	3-4	5	21600	15700	10800	9150	5400	2700	—	—	—	—	—	—	500
5000	8	9-10	11	—	—	—	—	—	—	7090	4300	3500	2300	1730	—	300
6000	1	3-4	6	8600	6350	4300	3620	2140	1070	8300	5150	4250	2750	2180	—	200
6000	8	9-10	11	—	—	—	—	—	—	—	—	—	—	—	—	370
6800	1	3-4	6	9500	7000	4750	4000	2350	1180	—	—	—	—	—	—	220
6800	8	9-10	11	—	—	—	—	—	—	9100	5650	4660	3000	2400	—	405
7000	1	3-4	6	10000	7300	5050	4280	2500	1250	—	—	—	—	—	—	230
7000	8	9-10	11	—	—	—	—	—	—	9700	6000	5000	3200	2400	—	430
8000	1	3-4	6	12000	8400	5800	4900	2900	1440	—	—	—	—	—	—	270
8000	6	9-10	11	—	—	—	—	—	—	11000	6800	5650	3700	2760	—	500
9000	1	3-4	6	13000	9400	6500	5500	3200	1620	—	—	—	—	—	—	300
9000	8	9-10	11	—	—	—	—	—	—	12500	7750	6300	4150	3100	—	550
9000	7	9-10	12	—	—	—	—	—	—	6200	3900	3200	2050	1550	—	275
10000	1	3-4	6	14400	10500	7200	6100	3600	1800	—	—	—	—	—	—	330
10000	8	9-10	11	—	—	—	—	—	—	14000	8600	7100	4600	3450	—	600
10000	7	9-10	12	—	—	—	—	—	—	8900	4300	3500	2300	1740	—	310
12000	1	3-4	6	17400	12500	8700	7250	4320	2150	—	—	—	—	—	—	400
12000	7	9-10	12	—	—	—	—	—	—	8300	5150	4250	2750	2070	—	370
14000	7	9-10	12	—	—	—	—	—	—	9700	6000	4900	3200	2440	—	430
16000	7	9-10	12	—	—	—	—	—	—	11000	6800	5600	3700	2780	—	500
18000	7	9-10	12	—	—	—	—	—	—	12500	7750	6300	4150	3140	—	550

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SOUTH AUSTRALIA

Whif' enthusiasts will be pleased to learn that the 144 Mc contact between SBO and SGL was repeated a few weeks after the first contact with SBO and that SGR also made contact with SBO. Fine work all round. There are reasons to believe that March is the best time to make an all out try to Interstate working on 144 Mc and an endeavor to get parties in each State with equipment ready and tested to co-operate for a series of tests over a week-end or two in

A break through on 50 Mc one night during March to VKZ gave the boys a break from rag chews. At the Royal Adelaide Exhibition great use is made of 50 Mc. by link stations relaying answers to calls by VK3WI on 14 Mc, thereby overcoming the terrific interference in reception caused by all the electrical appliances operating at the Exhibition. Self powered nightly, and doing excellent work, is 4GL, 5LW and 5HD. A 250 Mc. link has not been so successful. 5WI on 50 Mc was heard QSOing two VK2s.

576 Mr. News: Once again news is scarce from this band for the usual reason: 2ABZ has hijacked under control at last and is now able to receive most of the Sydney stations. 2RL, however, still seems to have problems with its linking on 576 with most of the active Sydney boys wandering-in and out on 578. Current shortage of lighthouse tubes is embarrassing to those with ASB7 and 8 Ra's, but quite a few of the 576 are in operation. Ra's are still in the push-pull mode, but some recently bought interesting information has come to link on push pull and push-push multipliers using diodes, e.g. EA60, no perhaps stabilised transmissions on 576 are not far off! With the consequent increase in SSB output, the results will be somewhat more encouraging.

VICTORIAN V.H.F. GROUP

Next Group meeting is the 31st May at the

activities. The March meeting was well attended and the full report of the 1944 season was given. The foreboers for the ensuing year, reports on field days, arrangements for the April field day and progress reports on the 144 and 50 Mc. rigs for the 1945 season were given. The foreboers were: Chairman, JFO; Sec. JAGJ, Vice-Chairman, JVS, Asst. Sec. 3AJ, Reports by portable stations were given on their activities on the field days. The 144 Mc. stations were active on the most activity was on 144 Mc., some stations were active on 50 Mc., but there were no reports of activity on 22 Mc. and 575 Mc. Weather was fair, but a cold front came in from the north although there was a thunderstorm during the afternoon. Portable stations were JFO, MLL, Macdonald, JJA, ML, Terrangore, JACS, ML, Macdonald, JAGJ, JVS, JAGJ, JVS, JAGJ, JVS, Macdonald, JVS, Kinglake, JVS, Sorrento, JADU, Klor, 3VR, Reed's Lookout, Grampana, and the 50 Mc. stations were near Wangara Basin and the 50 Mc. stations were near Wangara Basin.

Next field day season, TFF hopes to operate from Mt. Barrow from where no difficulty is expected in locating VK3 SJH and 36Q reported on progress they have made with the 144 Mc. and 50 Mc installations for 3W1 and their efforts have brought these a further stage nearer completion. Apart from field days, activity on the bands has been very alert, several stations, including yours truly (37O), have been very inactive at late

3QR re-building i.f. Rx. has separate Tx for 160, 144, and 288 Mc., all c.o. 5GL busy almost nightly as v.h.f. link for 5WI at Exhibition. 5RO has put up a good score in local v.h.f. contest and should have a handy lead. 5MK shifted QTH and for time will use a 5KL Special antenna on rotary clothes line. -VK5KL

144 Mc. News: Around Hobart this band is
the most popular. The CQ generally results in a
round of 10-15 show after using a modicum of
or some time, TJD went QRT and came up c.c.
At the moment a converter v. superhet is keep-
ing the referee "Tiny" on his toes. The T1143
tave 100% some strife, but he has it working
very nicely now about the same as the T1143
and the Bob. Sure a good thing with them we
would appreciate it. TAF just finished v.h.f.
trid dipper which should speed up the re-
modelling of a T1135 Tx and R125 Rx. hope to
hear you soon Bob. Two mobile units in use
v. TDR and TLE make interesting contacts for
input stations. Both are c.c. and an about 50
input.

On 6th Apr TLE and TOM went to Mt Wellington, while up north TLE and TPF both took equipment to TEX's hill, with hopes of relaying to VK3. Signals between north and south were a plus, but TLE and TPF were unable to contact VK3. We think there must be a ground in around as one circuit in the link is always dead. However TLE-TOM also worked JJD, TAJ and TDR who was mobile at Blackman's Bay. Signals between TLE and TPFs on TEX's hill and TKS at Burnie were RS without the pleasure on the Rx.

Going up the mountain, the 12v battery in the boot of 7LE's car turned over. Results, two hinky Hama as the acid was diluted with water. Fortunately, one flash just as we got your knowledge covers wide "scope" Bob or your element beam repair may not have been as busy. Len managed to pull the beam in half. Whose sig were you chasing when that happened? Len? The Hobart gang are awaiting a signal from 7MY at Sanford with interest.

[illegible]

Image by courtesy of Laurenceon Examiner.

DX NOTES BY VK4QL*

Last year I made comment that the bottom of the "DX Bucket" had been reached. If somebody had said, "You haven't heard anything yet," they would have been aptly referring to the present DX conditions. One has usually been able to find one band useless, but others to occupy his DX hours, but that condition no longer exists. 40C told me last year to work all the DX I could then, as 1952 would not produce much. From your Crystal Ball Cave, when do you expect the bands to show some improvement?

The band survey, with stations worked shown*, and times in GMT Z time:—
as Me. 2BA seemed to do very well in the A.R.R.L. Contest, his contacts being unknown. In the first week-end, he had a multiplier of 18. Just before the contest I could work Ws OK, yet in the contest two Ws and a XL3 were the sum total. MCP worked all W districts except W1 on the 10th. TRK found static very severe but could not bear any of the Ws that others were working. 50W found one week-end OK, the other of little help. JYP heard G6CU, G3HTQ, OZIRY and SM3ACW. I ran a sked with ZSRK, and although I heard him, no contact could be made. DU8RG and ZK2AA were also heard.

I Me. Although in this neck of the woods, not much success was attained, others found it profitable but erratic just the same. I could hear strong Ws between 0600Z and 0900Z once but it's a struggle to hear a W or VE at any time now. The Europeans and Africans were very patchy. Just the same, 80P worked PA8, H8B, YU1, OW, F4BVB (Antarctica), DL, Z33JP, I OK, SM, F, APNUAK, VP1NT, SP3PP, KZ3CS. On the 8th, between 0700Z and 0800Z, six Gs and H8B were contacted. Alboi also heard ZD4AC, CX1KB, KP4KD, EASDG, ZD4GAY, CN8MI, ZC4XP, FF8AG, UQ6KAA, PYQW, YV6DU, ZB19G, EASIE, the whole being an impressive list. 80P, who has a two el. fixed beam on Europe, lists YU*, SM*, F8, F8, Gs, H8B* DLT*, CE1KN, IS1AHK, 4K4DE, 4K4DC, EASJF, Z580W, VP6CDI. It just gets into his DX stride being a DX "redgling" TRK heard some very strong signs from the Ws

in the contest, also G8H 6700Z, YV3DE, KX5AH, Ray found like one, KX5AH does not answer VK calls. He thought he had a nice catch in SM8UNA but found he was marine 260 miles from Adelaide. He was strong here too Ray 49L, ZD4GAY who could not hear a reply to his repeated CQs, FF8AG*, KJ5AR, ZK1AB*, 5A2TT W1 and W4 2100Z, KZ3CS*, G3UFD, KC5QY, VP58H, E4ymann*, G3BKF and G4SS 6745Z, Z53K*, VS2LP*

14 Me.: Nobody content with the performance of this old standby, and all contributors voice the same opinion. 2A2X, who by the way is not changing his QTH after all, lists a contact with VP6AJ, Graham Land, which gave him 22/210. Arthur received cards from E8AAB and FB8XX. 3CX was one who found some Europeans, also NK and LZ1AS. Received QSLs from G6GVD, E63PM, 4EL had trouble maintaining his sked with GZEA, but managed to reach his 600th contact with him before he proceeded to his home on leave. 8H shared JABL, VR3C, KC8QY and received cards from E8A8M, K8SAQ and IS1AHK. TRK has little to raise the eye brows for this band other than FY1AP, G33U, T28RC, 8KE, who will now be away for two months, did not like the conditions much, especially with the approach of the E.R.U. contest, but Russ hit a purple patch on 14 Me. for the Gs early. Plenty could be heard calling him, yet I could not get one. When last heard Russ had about 200 contacts. 49L did not hear much, other than ZK5AA, YN1AA, PK5AA*, VP1AA*, VP8AA*, ZK1AB*, VQ4HP* and M30Z, LZ1AS, FZ10Y.

25 Me.: This band like a morgue TRK heard one or two Ws in the DX Contest, as did I. Other than that, Pacific stations were the limit. KV4AA gives some help for the "zen" section this month. ZL1BY has worked through to the Ws on 180 mhz. Dick said over there they are expecting to get the 21 Mc band on the 1st May. He gives the following new pre-fix allocations. 5A2T for Amateur use in Tripoli, 5A2C in Cyrenicals, and 5A2F in Pessan. KV4AA worked quite a few Ws on 180 mhz in the A.R.R.L. Contest and he finished up with a multiplier of 80. 4DO was heard working 5A2TV, who gave his QTH as Abadan, which does not follow the previously mentioned allocation. JCP said TTICW is quite OK, and YAMU

has been heard, but no known VK contacts. According to "QST" the EK1 prefix is to be changed to CN2. Additional prefixes to those in a recent issue of "A.R." are JVA-JVZ, Jordan, JZA-JZZ, Dutch New Guinea, PK5AA told me he is shortly returning home. Am still waiting on his long overdue QSL. I had a look at 21 Mc this month, and there are quite a few high speed stations in the band, some using U.S. prefixes, so it can be reasonably expected they will disappear on the release of the band to U.S. amateurs.

● The thought for the month, which must be in the minds of us all these days, is the wish for a very early improvement in DX conditions.

DX C.C. LISTING

FRONT			
Call	No. Ctr	Call	No. Ctr
VK1EE	10 128	VK1KS	9 135
VK1JD	1 185	VK1LN	11 132
VK4HR	12 135	VK4F1	21 138
VK1BZ	3 164	VK6DD	6 156
VK6RU	2 148	VK3JE	7 123
VK6KW	4 145	VK4WJ	17 122

C.W.			
Call	No. Ctr	Call	No. Ctr
VK1BZ	9 200	VK1KC	36 148
VK3FH	15 177	VK1KB	10 138
VK4HR	8 170	VK6RU	18 138
VK1BZ	3 187	VK1B	23 135
VK3EO	3 182	VK3GW	16 152
VK3CN	1 181	VK6RY	43 123
VK6SA	28 182	VK4DO	20 122
VK4F1	20 140	VK3KK	30 155
VK3VW	4 143	VK4QL	36 188
VK3VL	5 143	VK4RF	11 123

OPEN			
Call	No. Ctr	Call	No. Ctr
VK1BZ	4 213	VK4KS	24 149
VK4HR	7 200	VK3FL	38 143
VK6RU	4 183	VK3MC	5 139
VK1BZ	12 180	VK1OP	18 127
VK3HG	3 171	VK6DD	22 136
VK2DI	2 170	VK1LN	28 135
VK4F1	32 170	VK3ADE	82 133
VK1BZ	1 167	VK2AFA	9 139
VK6F1	10 167	VK4WF	42 125
VK3VW	3 165	VK3VWM	23 135
VK4DO	15 157	VK2NS	18 123

* F.L.F. F. T. Mine, No. 10 (G.R.) Squadron, R.A.A.F. Townsville, Queensland.

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The new band affords a wide segment for work in c.w. (A1), extending from 21000 to 21450 Kc, and provides a sub-band for phone work (A3) from 21150 to 21450 Kc.

GWBV followed Bill to England and purported to confirm to QSO on 2.5 Mc. c.w. on 13th November 1940. It was not until the following day that the land on that date it appears that GWBV has mistaken the call sign under Bill's call has been the call sign of the ship. The ship was the ship of Bob Simmons, ex-VSAR of Labuan, only requires a card from Oceania for his 86 metres. The ship is now in the hands of the Admiralty with whom he contacted. Should this ring a bell with any VK station, please forward the information to the Admiralty. The ship is now in Oceania contact for his phone W.A.C. on 2.5 Mc. and requests VK stations to keep a look out for the ship. The ship is now in Oceania 0001-0400 GMT and requests a call on c.w. if unable to raise him on phone. He is looking for a station on 2.5 Mc. c.w. and is looking for the abbreviation "QSO" with "VKUIM" are RST 450 and the freq. was 3515 Kc. Check

A letter from a Japanese SWL dated 2nd Jan. 1952, gives the latest position in that country. I quote: "J.A.R.L. is publication CQ that is organ of J.A.R.L. The contents of the book are repetitive and the guides in chief Tx and Rx are simple and not that many friends have a Tx the extent of 100 watt input which use 400 p.p.p. and it is prepare oneself for on the air. Sometimes we are surprise find a Japanese Ham's undercover station in the sky. For example, CBP, CFP, CFPK and CFPK, J.P.C., C.B.P., C.B.P. and C.B.P. I feel a regret on these stations. They are arrest by officers of Wireless."

Ron Moad VK9FZM, in a further letter addressed to an earlier par in these notes, states that the following Hams who have left the island:

Arch Barrie, 44 Mt. Eden Rd., Mt. Eden, Auckland, N.Z.; VK9QKQ, Ted Roberts, c/o Radio Shack, 140 Alston, N.S.W. VK9BYF, Bill Watson, c/o, Hobart, Tas. VK9BZ, Bob Watson, c/o, the following Hams are still in the territory but not known to be active: VK9RM, VK9K, VK9K, VK9BRT, Ron makes a couple of requests. Wants a list of people leading an Emergency Network and also the data of the QST that has the "gen" on hoisting up the CACN or the "gen" of the particular CACN. Can anyone assist?

Thanks Harold ZAGP, following from the Northern Beaches area. Bill ZWF is now the proud possessor of a rotary WAUK beam antenna. He has been one of the workers and is now operating from Towrang. The call of JHX Warren ZAMB has changed to 6XJ. Why? Well, ZAMB spending most of his time on 6XJZB. He was called occasionally. Tom ZXKX and Harry ZANF not on three days. Heard Fred ZAJM on 14 Mc. discussing the future of the club. Has daughter. From John ZANF we hear that Drummond has a new Amateur in John ZATO. John ZATO is on the air as ZATG. Bob ZAH and a hearty welcome to Amateur Radio. Keith ZADA going to Kangaroo Valley for a holiday. He will be on the air as ZADL. Able pig on 40 mc. Betty ZAMU of Kingsford, holidaying with BRT in Blue Mountains and back home on 7 Mc. Bob ZAPR is now about half-two to look after now. Ken ZAKK, of Gladstone, has just been married, congratulations. Heard Bob ZAFD on 14 Mc. ZAFD is off the air too much. Bob ZGR heard talking about getting going on 2 MX with gear lent

The following notes of the activities of the Gladesville Radio Club, kindly supplied by their Publicity Officer, Ken Andrew Newly elected Morrie Laphorne, Pres.; Graham Allen, Sec.; Mac Brown, Treas.; Allan Towler, Allan Liewclayn and Chas Freyer, Com.; Keith Alcock, VSL Officer, Ken Andrew, Vice-Pres., Librarian, Club Secretary, and the other outstanding club fixtures this year was the camping week-end at Garie Beach, under the guiding hand of ZHL—this proved a great success.

Despite the odd and infrequent good conditions on the bands of late, there has been a considerable amount of activity during the month. Several of the locals are experimenting with antennae of reduced dimensions for use in confined spaces on 14 Mc. 2A1A, 2ANC, 2ARA and 2ACD are all concerned using different types of array, which is leading to a certain amount of discussion on the subject. 2AXZ heard and contacted on 40 and 20, with a yearning for J0, 2AAB going to Urunga, built a brand new mod. and assures us it is good.

2AP7 still playing with full sized beams, gives a good account of itself. 2A1D, fiddling beams, only six points back to 2AP7. 2A1U is really hitting the highs this month. 2XW appears to be a regular on 80 at night, fine rig John. 2X1 still doing a good job, not heard much of late. 2AGX is another one doing very nicely, testing up the questions and answers. 2ZF is keeping in contact with his 444's; cooperation is necessary to get any place with his experiments.

2A1U the only ship around who to work DX regularly, the beam is really 14. 2QJ not heard on 20 for some time, hear that he has the 144 Mc. bug. Sorry to hear of the sickness of Joyce 2AM's father, hope to hear you soon Jack. 2ID appears to be getting his share at almost any time, must get the recipe. 2ABO is operating in with a rotating dipole, also on 144 Mc. again, 2MIF on holidays at Kennebr, operated nicely up there. 2AMP on most bands recently, sorry to hear you again Geoff. These notes by courtesy of Ted JACD

NORTH COAST AND TABLELANDS

By the time these notes have been printed the third Urunga Convention will be history to be remembered and I trust you all had a splendid time. A full report on the proceedings will appear in the next issue for those who were unable to be in it. The North Coast Zone has had quite a few visitors this month, and conversely a number of N/C boys have gone visiting. Mick 2AAR had a few days with Al 2UX at Llanore. VRID and VRIH are holidaying near Urunga and Laurie 2MIF spent a period at Kennebr, and returned to Sydney via Tamworth. A call to Gary 2WV Harold who is spending Easter with his folk. Ken 2APB has journeyed to Queensland to undertake further work with D.C.A. whilst Doug 2SH has gone to Parkes for a few weeks.

Not a month passes that some member of the N/C gang does not crash up a cap. Last week's episode of the art are Taree Bill 2AEY and Don 2YU. It is said that Bill succeeded in cracking the chassis in two places and Don made a real job of it. Jack 2XK is back on 40 once again after deciding to give it away! A new voice may soon be heard from Kempsey in the person of Bruce Murphy, no call at time of writing.

ing, shouldn't be long now. Terry 2AJS on holidays for a few weeks, heard on 30 meter. Len 2LR busy building a new Tx in a small space, working out very well.

COASTFIELDS AND LAKES

2A1U returned from his holidays at Mona Vale with much gear and many ideas, on the way with new 2X1 controlled by 2A1U. 144 Mc. 2YU can now listen on 144 Mc. using double conversion by feeding his responder unit into the main Rx. 2UX chasing DX on 30 m using new beam with good results. 2A2B consistently working into Sydney on 144 Mc. and also managed to catch some VKEs on 30 Mc. when the band opened. 2ECP is also working on 20 m. 2E2K rebuilding, held up by lack of vital parts. 2YV has not reported his usual 10 night's activity for the month, don't let that worry you get down Harry. 2XU has completed the beam for 2 m (4 over 4) and has now only in paint and erect it. 2KR active on 40 m and 144 Mc., made history by putting a signal into Cumnock on 144 from the water-logged wonderland. 2GA works 6 and 40 m and plans to take Coe to Urunga again this month. Even 2LX was heard on 40 m this month.

SOUTH COAST

The Wollongong Club class is getting the final brush up in readiness for the exam. One of the boys working his first WS (WSOLG) on 40 m using 25W, and getting a 3 point less than a local Ham using 100W., which speaks well of the club rig which is made out of old b.c. sets. The club call is VK2AMW. Eric 2DZ is very busy building a 2 and 8 m Tx and hopes to be finished before going to Urunga. Jim 2XKG not quite so busy calling CQ, as he is now busy with dry stock and is now helping the locals to seek cures not CQs. Howard 2AMD busy chasing DX on 30 m using his new track and panel job running 8w. John 2AUB busy building a new rig and with the knowledge gained after the club class (reins) at R.A.T. Richmond, we expect something good so hurry up John. Charles 2MT heard working a GW on 40 m and doing a fine job, but do not run the beam too hot 2UK and 2YH still

same-building for the next two months, so will not hear from them for some time yet. Jim 2AKM waiting for the a.c. power mains to be on his new QTH at Barracks Head, Shellharbour, looking ahead to the future, so long that I am sure he will need glasses now. Harry 2AIX not had the best of health on his way; cheer up Harry, and hope to hear you soon. Col 2GZ, Col 2GJ, and Fred 2GK for much of late. Col 2A5F conspicuous by his absence lately. Perhaps having a well-earned rest. 2A6B the chair at the QTH, maybe having a long sleep to make up for lost time.

SOUTHERN HARBOR

A representative gathering from most Hunter Valley towns was present at the Annual Meeting held at the Technica. College, Newcastle, on 14th March. A number of things prevented him actively partaking in Ham Radio these days, Allan Fairbairn, M.I.R.E. (2KBI), came along, indicating he is still firm and forecast a good Hunter Branch man. Allan took the chair at the invitation of the retiring Chairman while the President was being elected. The following officers were chosen by members to act on their behalf in the ensuing year. Pres., Lionel Swain 2SC, Vice-Pres., John Clarke 2DZ, Sec., Vardley 2YU, and Treasurer, John 2E2K. Nominated for President, John 2DZ declined to oppose Lionel to whom he paid a glowing tribute. He also declined to stand for re-election to office of 2DZ and 2XT, both of whom are hard workers for the Branch and Institute.

Many interesting facts were given to members by the visiting speaker, Mr. J. J. G. O'Connell, Castle Police Radio, when he spoke on "Development of Police Radio Communications." A few points were noted, such as the fact that Hams in the Force since the network started in 1924. Some eight thousand messages a year are handled in Newcastle. John 2E2K, VSWG/mobile marine, radio officer on S.S. Michael J. Goulardier, was recently in Newcastle. Howard 2AJS, from Tamworth, and Louis 2AKM, another visitor. The AKS, winner phase section Jubilee DX Contest. Keith on family on route VKS on caravan holiday called on 2AR. Len 2E2K, no least, among the visitors was Taree Bill 2AEY.

Once again I'm indebted to 2DG for Melbourn. Congrats to Keith on winning another Contest. Has just been advised by the Amateur Society that he has been awarded first place in c.w. section 1980 European DX Contest. 2YU enjoys collecting DX and puts phones on the air soon. Another who has had short but well-earned break is RAKF. VY working hard and calling. John 2E2K working WS on 80 phone. 2CN on 20 with a nice rig. Bert reports trouble with beam meter gear. Another to make a come-back is 2IS, who is modulating well and has acquired 280K and an 826. Holidaying at Forster, Harry 2A5F is putting out a solid signal from 2AAR's Bend. RALF 2XZ, Le. not permitting Harry 2SF not his c.o. 807 keying well on 40. 2BY has joined the "Old Gentlemen" on 40 with 7b sig from 8. Vardley 2YU has new freq. meter with xtal check and monitor perking well. 2AXM is building new final around an 812. It's true boys, the old 2ZF is re-building. Eerie is putting in a couple of 35T's; his new neighbour 2OT started with portable but Max has his 812 in commission now and beehing it out. Paul 2A2G has about 2000 on 40 and 200 on QTH, almost next door to 2ZC. 2AAI has new QRO rig with p.p. 807s on 80 but Ron still plugging with modulator. 2MR not on 40 but Edgar hopes to make it soon. 2ARK has XYL home again so Mac has more time for his radio; however, 2MR not on 40. 2ACI usually manages to QSO 2WI on Sundays for report and comments on b.c. George 2AGD is mostly on 20. Norm 2ANA rag-chewing on 40 phone.

Notice of Meeting.—The May meeting will be held on Friday, 9th, at the Technical College, Tighes Hill, Newcastle. 2WI for details.

VICTORIA

CENTRAL WESTERN ZONE

One is surprised at the way a grudge is stored up for years and years until the right moment. That villain, 3CN, waited for years to get even with 2YV, and when I caught him, George, even rallied in shortly after to see if I had got my breath back. George, by the way, is putting out a nice signal with a very benign antenna and the Type 3, the big rig is still on ice. 3DP for the time being has gone all DX, with 100W, on 834 on 14 Mc. c.w. 3fm c.w. (bowl) them over wherever they appear and has quite a bag to date. 3JL may not be trying to emulate 3WI and put out transmissions on 7 and 2.5 Mc. but he has on the last zone look up 3ARM could copy Allan nicely thank you while he was going on 40 m. to burn.

After checking 28 Mc. daily for weeks, 3ARL missed a beautiful opening on the only day

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he refused, never mind Ltn. we all slip sometimes, maybe it will open on the next 30-day cycle—by the way, where is the 6th volt power supply? The 500 volt LITP is the only one I can supply to just on 200 volts, so should be able to appear in the not too distant future. SACV, we believe has not been in the line of duty since cheer up Bill, nothing lasts for ever. SACV was heard on 7 Mc putting out a nice sig, except I listen at the wrong time or something, but I thought they seem quiet lately or have they all gone v.h.f.

SARN has now checked up the v.f.o. with the 400 and 400 being 1.5 at 1000 hours. w.b. stations appeared on 2.5 Mc. of late. ZLAE and ZLJAW, both have good signals, which is not difficult to get. ZLAE has been worked to date for the first VKL ZL s.b. contact on 8.5 Mc.

Zone members are asked to future on some hook-up and being on 135 at 1000 hours to change to 3.5 Mc at 1015 hours where control will be on approx. 3080 Kc. That is on the second Sunday of each month.

SEVENTH FIVE
I had intended to push this job onto 35G again this month, but after the way he libeled me last time I thought I'd better do the job myself. Leo isn't a bad sort, though, and he is sincere about the p.p. 80's don't always behave as the book says they do!

The field day held on 6th April was quite a good show, with perfect weather, and much practical knowledge concerning antennas, especially top loaded ones, was gained by the mobile chaps. Graham 502 had a breakdown with his modulator and to use c.w. but only ZLAE was the only one with a b.f.o. on his kit. Graham did manage to slaughter an outside in 10 minutes though. Much enthusiasm was shown by Peter 37Z, who sent his mate John all the way to Timbora for some xials, the round trip being a mere 130 miles. Apart from petrol and falling off his motor bike, John had a nice run—I hope!

The stork has been around again—Norm 31AC and Graham 35G, each acquiring a new V.L.C. on conditions on 40 and 30 Mc. Improving and the line-up on 3080 Kc on Sundays is very satisfactory. We are still waiting for Peter 31A to join the hook-up. What about you blokes buying a xial between 30 and 40? I hope to have paid a visit to VKS by the time this hits the newstands, but award this writing, I would not like to see the end of a trio of v.h.f. enthusiasts—there are ominous signs that 35S will be heard on 30 Mc. before long. Believe it or not.

NORTH-EASTERN ZONE
Things were very bright at the zone hook-up with a record 14 on the air. Strangers in 32AC and 37S were welcomed back to the fold. SACV on holidays, his wanderings are not especially severe, and any set him down where we would have seen you Chas. 3UI and 3APP experimenting on 258 Mc, but I never thought I would see the day when the experts of xial controlled converters and Tx's would descend to the low level of mod. osc. 3JC still in the midst of 30 mc beam troubles. You would never believe some of the queer things it does. Chased an 11 for a month, got the contact and lost it due to local electrical interference. I was then glad to let one go. 3ALCS has good modulation now, what did you do Les? 3FV back with us again giving lots of chit chat. The zone is predominately the zone hook-up. Come on 30 favours, 30 beams. 3KCS had a visit by 2NS.

Last v.h.f. field day, 3UI and 35C journeyed to Mt. St. George again under contract on 3 Mc. This occurrence is happening so often as not to become news any more. Most Mefb friends are still in the game. Evening line-up for next field day which is the last. Somebody must have received the mag early this time. The phone was needed to be held at 2000, I suggest you 3UI and 3APP, well you asked for it 31d. However I agree with you 31d, about it being a good spot. Residents of 3ALCS have been the 3ALX take a good look—flood warning, I take it. 3CI DXing on 10 mc, also working regularly on 2 mc. 3JC buying a new 100 watt in Melbourne. Now isn't time to assemble same in desired circuit.

GEELONG AMATEUR RADIO CLUB
A field night was recently arranged for members of the Club. The Tx, which operated on 80 mc under the Club's call 3ATL, was hidden away in the Frigate of the Club, 3AB, and 3FCS Cartwright at Ysanderford. First to arrive were 35V, 3ALG and Max 37C. Their time was 23 min. These operating the Tx did a good job in hiding and added 100 yards of mile lead from the Tx.

At the next meeting several items re the Club have been discussed, this took the whole evening up. The main item was arrangements for the forthcoming South Western Zone Convention to be held in Geelong. A visitor to

the Club was Mr. Ted Blackney who was nominated for membership by 3AEE. The Geelong group stop at places at 3000 hours every Thursday night.

QUEENSLAND

By the time these notes appear in print, the new Council for the VK4 Division should be comfortably enmeshed in office. Except for the 3000 hours of the 30th hour, the burden last year stay put. Stout "fellas." The three new faces to grace the Council board are those of Arthur Burtin 4FE, Orie Harris 4TN, and Gaudard 4AP. The positions of Federal Councillor, VK4W1 Station Manager, and Divisional Sub-Editor, respectively.

PRESIDENT'S REPORT

Presented at VK4 Annual Dinner, March 29
Gentlemen and Members—it is my privilege to present to you a résumé of the Division's affairs for 1951-2. During this period, membership has decreased by 55, including 29 full members and 26 associates. However, this loss is partly offset by the enrollment of 33 new members, bringing our present total to 201 and, as most of the year lies ahead, prospects of increasing membership are really good. Likewise, our finances are good as will be noted from a perusal of the balance sheet which will be sent to all members with an early issue of our own little publication, "QTC." The No. Account, admittedly shows only a small cash carry over, but what must be considered is that the Division holds equipment valued at approximately £150, including a modern duplicator which will more than save its cost over the ensuing years. As regards the No. 2 Account the happy result of disposal equipment sales, I am pleased to state that this is being held in trust for allocation at a later date to permanent headquarters for the VK4 Division. Our departments, QSL Service, Station 4W1, "QTC," Library Service, etc., have been fully maintained and I believe, much appreciated. Council itself has functioned actively, smoothly, and with almost 100 per cent. attendance figures. We lost three councillors of real value in the termination of the year, but I then wish to tender our thanks for their unstinting

Equipment Library—Funds and personnel now allow this much needed service to slowly come into operation. Some of the equipment for electrical construction is available and will be added to as time permits.

Contest Committee—This newly formed group has been busy framing contests of a local nature for VK4 members. Decisions appear monthly in "QTC" and your earnest support is requested.

Student Class—The class, as last year, is in the capable hands of Mr. Tom Athey. Every assistance is given to those anxious to attain the A.O. as it is in this section that our future will be assured.

Emergency Network—Arthur 4AW, a past president of several years' standing, has continued with this most important section. Net members now number 50 and areas covered include Darling Downs, Atherton Tablelands and the East coast. Members are required for the remaining country districts. Net sessions are held on the third Sunday morning of each month and those anxious to participate should contact 4AW.

Seminar—Sam Convention—It was fortunate to be present at this Convention, held early this year and cannot speak in sufficiently glowing terms of the craze for Seminars. The efforts by Messrs. 4FD and 4CG to make the "Do" the success it really was. It is not necessary for me to add the more functions of like kind are eagerly awaited.

Station VK4W1—Almost without exception 4W1 has been on the air every Sunday morning for the dissemination of Divisional news to New country citizens. Our sincere thanks go to the past Station Managers, 4FN and 4WD, for their sterling work in winning and holding members. In the future, I must strongly stress that there is always an urgent need for news—remember the other fellow is just as interested in your doings as you are in his. Direct all items of interest to the new Station Manager, Orie 4TN and thus help him maintain the high standard of past broadcasts.

In a short report such as this, I cannot cover the whole of our Divisional activities. However, we have adopted a new and improved Divisional Constitution which so far suits our needs and could possibly be the forerunner of the federation of our divisions. Also we have some, and I will continue to do so, in the past. I am sure that the Division is interested in upholding Queensland Division's interests and affairs to the high standards set in the past. As regards yourself, my fellow member, Division, I would like you on occasions throughout the year to consider your justification as an Amateur, and give thought to the privileges

you now enjoy. In this connection I suggest that you pay more attention to the use of the high frequency channels; that you take advantage of new technique such as a.s.c., transmission and reception; and that from time to time you review latest technical trends and allow these new trends to influence your radio activities.

In conclusion, I urge all members to conduct their operational activities as to comply with the regulations, and thus maintain our self government and the confidence and respect which has been shown to us in the past by the Postmaster General's Department. (Signed) V. JEFFES (VK4V), President.

CLARE'S CORNER

Absent on 20 lately is 4FX—reason, new 31 mc beam, 4CC has chalked up over 100 contacts with 757T. Brilliant visitors, 8GR and 3YL have recently been visited quite a few of the boys. Pleased with the results from his new vertical is 4RJ; looks forward to even better results when in new Northgate QTH. 4TT is experimenting with a 2L Special and getting his fair share of DX. Active on 30 with nice phone signal is 98D; love to hear that laugh of 97A.

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